

ABSTRACT

A method of compressing video data having at least one frame having at least one block and each block having an array of pixels is provided. The method transforms the pixels of each block into coefficients and creates an optimal transmission order of the coefficients. The method also optimizes the speed of processing compressed video data by partitioning the data bitstream and coding each partition independently. The method also predicts fractional pixel motion by selecting an interpolation method for each given plurality or block of pixels depending upon at least one metric related to each given block and varies the method from block to block. The method also enhances error recovery for a current frame using a frame prior to the frame immediately before the current frame as the only reference frame for lessening quality loss during data transmission. Enhanced motion vector coding is also provided.